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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kiu-Hae Jung

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STEIN MCEWEN, LLP
1400 EYE STREET, NW
SUITE 300
WASHINGTON, DC 20005

EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/673,402	Applicant(s) JUNG ET AL.	
	Examiner Peter Vincent Agustin	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11,27-31 and 36-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11,27-31 and 36-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-11, 27-31 & 36-52 are currently pending.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 6, 2009 has been entered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-11, 27-31 & 36-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Shigenobu et al. (US 5,917,792).

In regard to claim 1, Shigenobu et al. disclose an information storage medium (Figure 2) for use with a recording and/or reproducing apparatus, the information storage medium comprising: a user data area (as shown) comprising a plurality of user data frames (see Figure 4), each of the user data frames comprising corresponding sync data of a plurality of sync data (denoted by SY); and an additional data area (“preamble”) located before and/or after the user data area (as shown), and comprising at least two additional data frames (first frame in preamble labeled SY4, SY4 and second frame in preamble labeled SY3, SY3), a first one (first frame in

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preamble labeled SY4, SY4) of the additional data frames comprising first sync data (SY4, SY4), and a second one (second frame in preamble labeled SY3, SY3) of the additional data frames comprising second sync data (SY3, SY3), the first sync data and the second sync data being different from the plurality of sync data of the user data frames (as shown), the first sync data and the second sync data enabling the apparatus to identify the additional data area from the user data area when the information storage medium is used with the apparatus (column 5, lines 16-18); wherein: the first sync data (SY4) comprises a first sync body (Figure 6: last 16 bits of sync pattern SY4) and a first sync identification (first 16 bits of sync pattern SY4), the second sync data (SY3) comprises a second sync body (last 16 bits of sync pattern SY3) and a second sync identification (first 16 bits of sync pattern SY3), the first sync identification is different from the second sync identification (as shown), the information storage medium is a read-only information storage medium (column 17, lines 7-9: “recording medium comprising a preamble part intended exclusively for playback, such as a DVD”), and the additional data area makes the read-only information storage medium compatible with a recordable information storage medium (inherent, see Response to Arguments below).

In regard to claim 2, Shigenobu et al. disclose that the plurality of sync data of the user data frames, the first sync data, and/or the second sync data are disposed in a plurality of locations, and are arranged so that adjacent ones of the plurality of sync data of the user data frames, the first sync data, and/or the second sync data are separated by equal intervals (as shown in Figure 4).

In regard to claims 3 & 9, Shigenobu et al. disclose that the first sync data and/or the second sync data are arranged in a plurality of locations in the additional data area so that a size

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of each of the user data frames of the user data area separated by the plurality of sync data of the user data frames is equal to a size of each of the at least two additional data frames of the additional data area separated by the first sync data and/or the second sync data (as shown in Figure 4).

In regard to claims 5, 6 & 10, Shigenobu et al. disclose that the plurality of sync data of the user data frames are arranged in a plurality of locations in the user data area (as shown in Figure 4), and a total size of the at least two additional data frames of the additional data area (two frames) is an integer multiple of a size of each of the user data frames (one frame) of the user data area separated by the plurality of sync data of the user data frames.

In regard to claims 4, 7, 8 & 11, Shigenobu et al. disclose that each of the plurality of sync data of the user data frames (denoted by SY) comprises a sync body (Figure 6: last 16 bits) and a sync identification (Figure 6: first 16 bits), and each of the sync identification of each of the plurality of sync data of the user data frames, the first sync identification, and the second sync identification satisfies a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k (as shown in Figure 6, the first 16 bits satisfy an RLL (2, 10) code).

Claims 27, 28, 30, 31, 36 & 37 have limitations similar to or otherwise understood from the limitations of claims 1, 3, 4 & 7, and are rejected on the same grounds. Furthermore, in regard to claim 27, Shigenobu et al. disclose a recording and/or reproducing apparatus (Figure 1) comprising: a recording and/or reproducing unit (11) to optically transfer user data and/or additional data between the apparatus and the information storage medium (10); and a controller (inherent component that controls pickup 11) to control the recording and/or reproducing unit to

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transfer the user data with respect to the user data area, and to transfer the additional data with respect to the additional data area.

In regard to claim 29, Shigenobu et al. disclose that the controller further controls the recording and/or reproducing unit to: determine another user data area (Figure 2) comprising a plurality of user data frames (as shown in Figure 4), each of the user data frames comprising corresponding data of a plurality of sync data (denoted by SY), so that the additional data area (preamble) is disposed between the user data area and the other user data area (as shown in Figure 2), and transfer the user data with respect to the other user data area.

In regard to claim 38, Shigenobu et al. disclose an information storage medium (Figure 2) for use with a recording and/or reproducing apparatus, the information storage medium comprising: an additional data area (Figure 4: “preamble”) comprising: a first additional data frame (first frame in preamble labeled SY4, SY4) comprising first sync data (SY4, SY4); and a second additional data frame (second frame in preamble labeled SY3, SY3) comprising second sync data (SY3, SY3); and a data area (1st through 16th sectors) comprising a data frame (frame labeled SY0, SY5 in first sector) comprising third sync data (SY0, SY5); wherein: the first sync data is different from the second sync data (as shown); the third sync data is different from the first sync data and the second sync data (as shown) to enable the apparatus to identify the additional data area from the data area when the information storage medium is used with the apparatus (column 5, lines 16-18); a size of the additional data area (4 frames) is an integer multiple of a size of the data frame (1 frame); and the additional data area provides compatibility among information storage media having different formats for use with the apparatus (inherent, see Response to Arguments below).

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In regard to claim 39, Shigenobu et al. disclose an information storage medium (Figure 2) for use with a recording and/or reproducing apparatus, the information storage medium comprising: an additional data area (Figure 4: “preamble”) comprising: a first additional data frame (first frame in preamble labeled SY4, SY4) comprising first sync data (SY4, SY4); and a second additional data frame (second frame in preamble labeled SY3, SY3) comprising second sync data (SY3, SY3); and a data area (1st through 16th sectors) comprising a data frame (frame labeled SY0, SY5 in first sector) comprising third sync data (SY0, SY5); wherein: the first sync data is different from the second sync data (as shown); the third sync data is different from the first sync data and the second sync data (as shown) to enable the apparatus to identify the additional data area from the data area when the information storage medium is used with the apparatus (column 5, lines 16-18); a size of the first additional data frame is equal to a size of the data frame (as shown in Figure 4); and the additional data area provides compatibility among information storage media having different formats for use with the apparatus (inherent, see Response to Arguments below).

In regard to claim 40, Shigenobu et al. disclose an information storage medium (Figure 2) for use with a recording and/or reproducing apparatus, the information storage medium comprising: an additional data area (Figure 4: “preamble”) comprising: a first additional data frame (first frame in preamble labeled SY4, SY4) comprising first sync data (SY4, SY4); and a second additional data frame (second frame in preamble labeled SY3, SY3) comprising second sync data (SY3, SY3); and a data area (1st through 16th sectors) comprising a data frame (frame labeled SY0, SY5 in first sector) comprising third sync data (SY0, SY5); wherein: the first sync data is different from the second sync data (as shown); the third sync data is different from the

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first sync data and the second sync data (as shown) to enable the apparatus to identify the additional data area from the data area when the information storage medium is used with the apparatus (column 5, lines 16-18); each of the first sync data (SY4) and the second sync data (SY3) comprises a sync identification (Figure 6, first 16 bits) and a sync body (last 16 bits); the sync identification of the first sync data is different from the sync identification of the second sync data (as shown in Figure 6); and the additional data area provides compatibility among information storage media having different formats for use with the apparatus (inherent, see Response to Arguments below).

In regard to claim 41, Shigenobu et al. disclose an information storage medium (Figure 2) for use with a recording and/or reproducing apparatus, the information storage medium comprising: an additional data area (Figure 4: “preamble”) comprising: a first additional data frame (first frame in preamble labeled SY4, SY4) comprising first sync data (SY4, SY4); and a second additional data frame (second frame in preamble labeled SY3, SY3) comprising second sync data (SY3, SY3); and a data area (1st through 16th sectors) comprising a plurality of data frames (as shown), each of the data frames comprising corresponding sync data of a plurality of sync data (denoted by SY); wherein: the first sync data is different from the second sync data (as shown); the plurality of sync data of the data frames is different from the first sync data and the second sync data (as shown) to enable the apparatus to identify the additional data area from the data area when the information storage medium is used with the apparatus (column 5, lines 16-18); each of the first sync data (SY4) and the second sync data (SY3) comprises a sync identification (Figure 6, first 16 bits) and a sync body (last 16 bits); the sync identification of the first sync data is different from the sync identification of the second sync data (as shown in

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Figure 6); and the additional data area provides compatibility among information storage media having different formats for use with the apparatus (inherent, see Response to Arguments below).

In regard to claim 42, Shigenobu et al. disclose an information storage medium (Figure 2) for use with a recording and/or reproducing apparatus, the information storage medium comprising: a plurality of data areas (as shown), each of the plurality of data areas comprising a plurality of data frames (see Figure 4), each of the data frames comprising corresponding sync data of a plurality of sync data (denoted by SY); and an additional data area (preamble) located between two of the data areas (see Figure 2) and comprising: a first additional data frame (first frame in preamble labeled SY4, SY4) comprising first sync data (SY4, SY4); and a second additional data frame (second frame in preamble labeled SY3, SY3) comprising second sync data (SY3, SY3); wherein: the first sync data is different from the second sync data (as shown); the first sync data and the second sync data enable the apparatus to identify the additional data area from the data areas when the information storage medium is used with the apparatus (column 5, lines 16-18); each of the first sync data (SY4) and the second sync data (SY3) comprises a sync identification (Figure 6, first 16 bits) and a sync body (last 16 bits); the sync identification of the first sync data is different from the sync identification of the second sync data (as shown in Figure 6); and the additional data area provides compatibility among information storage media having different formats for use with the apparatus (inherent, see Response to Arguments below).

Claims 43-52 have limitations similar to or otherwise understood from the limitations of claims 38-42, and are rejected on the same grounds. Furthermore, in regard to claim 43-47,

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Shigenobu et al. disclose a reproducing apparatus (Figure 1) comprising: a pickup (11) to emit light onto the information storage medium (10); and a controller (inherent component that controls pickup 11) to control the pickup to reproduce data recorded in the data area.

Response to Arguments

5. Applicant's arguments filed on May 6, 2009 have been fully considered but they are not persuasive.

(a) Applicant argues on page 17, paragraph 2 that Shigenobu does not disclose or suggest the feature “the first sync data [of the first additional frame] and the second sync data [of the second additional data frame] being different from the plurality of sync data of the user data frames. The examiner disagrees. As noted in the rejection above, the “first sync data” corresponds to the sync patterns SY4 & SY4 in the first frame of the preamble in Figure 4, and the “second sync data” corresponds to the sync patterns SY3 & SY3 in the second frame of the preamble in Figure 4, both of which are different from the sync data of the frames in the data area (1st through 16th sectors).

(b) Applicant argues on page 17, paragraph 3 that Shigenobu does not disclose or suggest the features “the first sync data comprises a first sync body and a first sync identification” and “the second sync data comprises a second sync body and a second sync identification”. The examiner disagrees. Figure 6 of Shigenobu shows a typical arrangement of the sync patterns SY0 to SY7, each of which comprises 32 bits. Figure 6 shows the first 16 bits of each sync pattern being grouped separately with the last 16 bits. This is because the last 16 bits represent the body of a sync pattern, which, as shown in Figure 6, are the same for all of sync patterns SY0 to SY7. The first 16 bits represent the

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sync ID, which are made different for each sync pattern in order to distinguish the sync patterns from each other. This arrangement shown in Figure 6 is a standard arrangement of bits in sync patterns, which is very well known in the art. See for example: Figure 30 of Senshu (US 2003/0103429); Figures 6 & 7 of Okamura et al. (US 2003/0174625); and Figure 1E of Kim et al. (US 2004/0168010).

Applicant further notes (see page 17, last paragraph) that “the only basis for such an interpretation is found in the applicant’s disclosure”, and that the rejection is “based on an impermissible hindsight reconstruction of the invention arrived at by reading the applicant’s disclosure”. However, as noted above, the arrangement shown in Figure 6 is a standard arrangement of bits in sync patterns, which is very well known in the art. Therefore, the rejection is not based on an impermissible hindsight reconstruction based on applicant’s disclosure, but is based on teachings of Shigenobu that are very well-known in the art.

(c) Applicant argues on page 18, paragraph 2 that Shigenobu does not disclose or suggest the feature “the additional data area makes the read-only information storage medium compatible with a recordable information storage medium”. The examiner disagrees. First, it should be noted that the limitation “the additional data area makes the read-only information storage medium compatible with a recordable information storage medium” is merely a recitation of intended use that neither limits the scope and/or effect of the claim language nor limits the structure of the claimed information storage medium, and therefore is not given patentable weight. See MPEP § 2111.04. Nevertheless, this feature is inherent from Shigenobu et al. for the following reasons. Paragraph 0006 of the

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applicant's specification indicates that "the read-only information storage medium is required to have the same structure as the recordable information storage medium so as to have *reproduction compatibility* in a drive and a format consistent with the recordable information storage medium. In other words, the read-only information storage medium has a *structure including user data areas A and additional data areas B*. Here, the *additional data areas B are located before and after the user data areas A and must have the same length as the run-in areas and the run-out areas* described with reference to FIG. 1." The storage medium of Shigenobu et al. meets this structure (as shown in Figure 4); therefore, it follows that the additional data area of Shigenobu et al. "makes the read-only information storage medium compatible with a recordable information storage medium".

(d) In response to applicant's argument on page 19, last paragraph that the examiner has not given patentable weight to the claimed feature "the additional data area is provided to make the read-only information storage medium compatible with a recordable information storage medium", which allegedly entitled to patentable weight, see item (c) above.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is (571) 272-7567. The examiner can normally be reached on Monday-Thursday 8:30 AM-6:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter Vincent Agustín/
Primary Examiner, Art Unit 2627